Energy Ball**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Demonstration**

An Energy Ballis a small device with two small metal electrodes. When the two electrodes are touched simultaneously, the circuit is completed so that the device flashes and makes a sound. The slightest conduction between the two electrodes activates the spheres.

**Note: Only use this demonstration if your classroom culture is comfortable to touch hands in a large group. This is a good demonstration for Valentine’s Day.**

**Steps to be followed:**

1. Have two students each touch a sensor and then hold hands to start the flashing.

2. See how many students can hold hands and keep the circuit going.

3. Designate one student to be the “switch”. If the switch releases one or both of the hands they’re holding, the ball will stop flashing, representing an open circuit. Holding hands again will start the flashing, and the circuit will be closed.

**Questions to consider/Alterations:**

1. Is there a time delay in joining hands (closed circuit) and the flashing? (This addresses a misconception)

2. Does the number of students make a difference?

3. What happens if students touch a sleeve instead of hold hands? (conductors vs. insulators)

4. Is the human body a conductor?

5. Try the experiment with students placing a hand in water.